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ABSTRACT

This monograph examines the literature on undergraduate curriculum improvement from 2 perspectives. One is the National Laboratory for Higher Education's assumption of the "intimate interrelationship" among teaching, instruction, and the curriculum. The other is that of the author who considers the topic within a framework of 4 components: the learner, what is to be learned or experienced, the instructional agent, and the interaction between and among them. The study is divided into a review and findings which encompass general matters, old curriculum models and new patterns, the process of undergraduate curriculum improvement, and problems for future research. The second major section presents a summary and recommendations; and the third consists of an extensive bibliography. (JS)

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A CONCEPTUAL AND BIBLIOGRAPHIC STUDY

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A CONCEPTUAL AND BIBLIOGRAPHIC STUDY

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NATIONAL LABORATORY FOR HIGHER EDUCATION
Durham, North Carolina
1971

The National Laboratory for Higher Education works cooperatively with two-year and four-year colleges to develop and test innovative approaches to organization, administration, and instruction. The Administrative and Organizational Systems (AOS) program of the laboratory's senior college division, is designed to assist colleges and universities in introducing a continuous process of constructive, rational, and orderly change. The study reported in this monograph was conducted as a part of the AOS program.

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ABSTRACT

Undergraduate curriculum is defined as the totality of subject matter knowledge, skills, or experiences that the college wishes its students to confront. Undergraduate curriculum improvement (UCI) is discussed within a framework of four components—the learner, what is to be learned or experienced, the instructional agent, and the interaction between and among them. Some of the findings of this study were:

1. Efforts to improve the undergraduate curriculum usually are at the clerical-distributive level (courses, credits, etc.).

2. The evidence suggests that many institutions may be ready to move beyond the clerical-distributive level in the UCI process to more sophisticated and comprehensive considerations. This second level would be characterized by efforts to account for and meaningfully integrate the subject matter or experiences with which the student should be confronted, the instructional agent, and the most effective learning mode for bringing these three together. A third level of complexity emerges when all of these components are given an institutional and administrative framework within which they can function with relative autonomy (*e.g.*, non- or inter-departmental structures, area studies, consortia arrangements, and interdisciplinary programs).

3. Pressure for UCI is coming from at least four sources: from the wider social order, external institutions and organizations, substantive forces such as the knowledge explosion, and from within higher education itself.

4. Principles and guidelines for UCI are numerous and varied. They range from philosophical principles to specific accounting in the clerical-distributive domain. Elements thought to be essential relate to breadth, depth, continuity, and flexibility. Three other less conceptual elements considered important are the balancing of liberal with vocational education, providing for planning and eval-

uation of the curriculum, and keeping in mind the relationships between teaching and learning.

5. Restraints against UCI usually are found primarily within an institution with faculty members playing a key role in the UCI process.

6. New curricular patterns indicate that some effort is being given to the incorporation of more components (see item 2) into the UCI process.

7. Five problem areas are suggested for possible developmental activity related to undergraduate curriculum improvement: (a) course proliferation, (b) developing a system of curriculum review and control, (c) achieving a more comprehensive framework for curriculum improvement, (d) curriculum planning and management, and (e) the interaction of the instructor, the subject matter, and the learner.

INTRODUCTION

This monograph is the result of review and analysis of the literature related to the question of undergraduate curriculum improvement (UCI). Research on the topic was pursued in a rather unspecific manner, allowing the weight of the literature to dictate those aspects of the question which should be regarded as most important. Having examined the topic from a variety of perspectives, the next step was to find or impose some order on the many facets of the question. A final step was to derive some consensus on the major points from the various writers. A second part has been added to this paper which represents an attempt by the writer to suggest some areas where fruitful action might be undertaken with respect to undergraduate curriculum improvement.

Two rationales have guided the development of this paper. The first rationale comes from NLHE and its understanding of the intimate interrelationship of teaching, instruction, and the curriculum. The second guiding rationale comes from the writer's own perspective and research. This rationale perceives the curriculum within a framework that is larger than course offerings and course content. The curriculum in its most accurate formulation includes all of the knowledge and skills that are to be acquired by the student as well as those experiences to which a college or university desires to expose its students.

With this definition, curriculum becomes one of four major components in the curriculum-instructional-learning process. The other three are:

1. *The learner*—his ability, learning history, motivation, developmental status, and the behavior which the learner expresses, that gives evidence learning and instruction have been effective.
2. *The instructional agent*—the instructor, the text, the lecture, the film, the field work, the independent study, the primary

group, and the confrontation with other cultures, subcultures, or peer groups.

3. *The interaction between curriculum, learner, and instructional agent* – the mode of learning, how and where learning and instruction occur (lecture, group, etc.), as well as how components 1, 2, and 3 affect each other in their interaction.

This position has been arrived at after extensive familiarization with the following authors and their research on relevant variables in the curriculum-instruction-learning process:

- *Sanford and Katz* – The importance of the developmental status of the learner as he interacts with curriculum and mode of instruction.
- *Heist* – The interaction of the learner's personality and certain types of curricula and subject matter.
- *Coleman, Newcomb, and Trow* – The impact of non-academic experiences on learning outcomes (living-learning, peer groups, etc.).
- *Cope and Stern* – Classroom performance as a result of personality structure.
- *Bruner* – Psychological basis of subject matter.
- *Gage, Ryans, Jackson, Amidon, and Flanders* – Teacher characteristics and classroom behavior.
- *Schwab and Elam* – Emphasis on structure as a way of analyzing and reorganizing disciplines or subject matter.
- *Stern and Pace* – Interaction of personality structure and pressure from the academic environment.
- *McKeachie* – The relationship of learning outcomes and instructional method.
- *Bruner and Gage* – The multi-dimensional nature of the learning and instructional process.
- *Dressel* – The relationship between teaching and learning.

REVIEW AND FINDINGS

General Matters Relating to Undergraduate Curriculum Improvement

Diversity of Meanings, Levels, and Components

There are several groups of voices in the curriculum improvement dialogue. What they say depends upon the perspective from which they speak. One group emphasizes the need for a conceptual reunification and restructuring of knowledge and the knowledge-getting process. The curriculum theorists and philosophers of education predominate in this approach. Their emphasis is that curriculum can be improved when the way knowledge is accepted as valid or rejected as invalid is understood in a given discipline.

This approach is dominated by discussions of modes of inquiry, structure, typologies of knowledge acquisition, and ways of knowing. It seeks new ways to incorporate new knowledge into old structures. Proponents of this approach point out that it is futile and hopeless for any college or university to attempt to remain abreast of the exponential growth of new knowledge and information. Economically the college would exhaust its resources in such an effort as well as be left in a few short years with factual knowledge that would be obsolete. It would be better, this approach states, if educators would concentrate on the acquisition or learning process instead of having students merely acquire facts-as-objects and store them for later retrieval.

Another approach to the curriculum discussion follows an empirical line. The emphasis here is on objectives, learner behavior outcomes, specification of skills, knowledge, capability, competencies. This approach represents a systematic effort to establish the terminal learning behavior which is desired and, through an established cycle—learner's behavior, evaluation, feedback—move the learner towards the behavioral goal. With respect to curriculum, this approach would begin and proceed through each step: a care-

ful statement of goals, criteria, procedure, and evaluation. This approach is applicable to any given aspect of the curriculum effort – a lecture, a course unit, or the total curriculum of an institution.

The majority of the present discussion on curriculum in higher education is a mixture of the empirical and two other components that shall be described as practical and experimental. The way these three components merge and mix in contemporary college curricula results in several levels of complexity.

The most basic level for dealing with curricular improvement questions is described as clerical-distributive. The concern at this level is for discrete courses and credit unit prerequisites, sequences, distributive quantities, dropping, adding, substituting, and skipping. William Cole compares this level with a labor-management dispute and stamp (trading) collecting. The faculty members are management; the students are labor; the grades represent wages. Each side pursues his course of action on a "mini-max" principle, maximizing outcomes while minimizing inputs. The wages, once received, are pasted in the book by the registrar. When the book is full, the diploma can be redeemed. (62:46-7)

It is not impossible for such significant issues as new degree programs to be dealt with on this same level. Because this level controls the educational possibilities of most American college students, and because it is *not* a level at which capable faculty minds in colleges are willing to work, it remains the most dangerous and most difficult curriculum phenomena to convert and transform.

When an experimental component is added to this practical way of handling the curriculum, a modification begins to occur. The additions may be only of an administrative type, *e.g.*, early admissions, reduction in course number, or the introduction of pass-fail. Because new elements have been added, however, the curriculum discussion has moved to a second level.

The second level of discussion requires incorporation of the major components of the curriculum-instruction-learning situation mentioned at the outset of the monograph. This level is concerned not only with the clerical-distributive requirements but also with what subject matter or experiences will confront the student, what will be used as the instructional agent, and what will be the most effective learning mode for the student.

There are indications that some thought is being given to the best and most meaningful way to integrate these components. The learning process is seen as taking place both on and off campus, involving both conventional and nonconventional education strategies, a mixture of methods and a variety of instructional agents from "real life" experiences.

A third level of complexity emerges when all of these components are put in an institutional and administrative framework. Such efforts take form in non- or inter-departmental structures, in area studies, consortia arrangements, or interdisciplinary programs. Providing an administrative or organizational framework for curriculum improvement not only adds legitimacy to such improvement efforts, but also helps to insure stability. The cluster or experimental college, where an administrative and organizational context is provided for improvement efforts, would be an example of this third level in action.

Rationale

The question of whether the undergraduate curriculum is about to undergo some major change receives contradictory answers. Certainly, historical shifts have occurred. Colleges moved from a prescriptive pattern in the early 19th century, to an elective system in the late 19th century, and to a concentration distribution system in the early 20th. (17:268-288)

Some view the monstrous urban university and admit that in all of the changes that have and will occur, the curriculum has been and will be least affected. Others view the enormous pressures on higher education and conclude that inevitable and sweeping change will occur, the only real question being whether it will occur in a peaceful or revolutionary way. (50:202)

Pressures to improve the curriculum have come from at least four sources. They are the wider social order, external institutions and organizations, substantive sources, and from within higher education itself. A few words will be given to each of these.

1. ***The Wider Social Order.*** Within this one source are such divergent pressures as our nation's role in international affairs, shifts in our social philosophy, demands from the occupational world and technology. (58, 94) As the U.S. has tried to maintain its role and influence as world leader, higher education has been called upon to make its contribution. The curriculum has been challenged to address itself to this pressure by incorporating an international perspective. Social forces which assume an equal educational opportunity for all have placed a burden on higher education in terms of the numbers and quality of students which are eventually felt in curriculum adjustments. The world of work, as does technology, stands waiting to incorporate the products of higher education — the vocationally and technically prepared, the talented, the specialists, the managerial possibilities. These pressures force the university to consider curriculum in its manpower function.

2. ***External Institutions and Organizations.*** This source of pressure comes from three major groups. The first group is made up of the college's supporting communities and publics (agencies, foundations, special groups) who find ways to use the curriculum for their goals. A second group consists of organizations that control the accreditation, certification, and employment processes and thereby can alter the curriculum. A third force is represented by the upward push of the secondary and high school curricula, which produces more informed and knowledgeable students.

3. ***Substantive.*** The substantive pressure is less visible and more implicit than the previous two. It includes such value premises as believing education to be the mechanism that can solve real personal and social problems. This substantive pressure group also includes a factor, known as the "knowledge explosion," which affects efforts to assimilate and transform knowledge in meaningful and economical ways.

4. ***Pressures from Within Higher Education.*** Some of these problems represent perennial and central curricular concerns, *e.g.*, liberal versus professional education, breadth versus depth, continuity versus sequence, integration versus fragmentation. A second pressure from within higher education has come from students. They are more numerous and more varied in ability, preparation, motivation, and needs. In recent years they have become more action-oriented, more demanding, and more insistent that *all* the processes, including UCI, be revolutionized. (64) Although higher education has been responsive to some of the demands of students (*in loco parentis*, impersonality, coed housing, etc.), few of its responses have affected central educational functions such as the curriculum. (51) Finally, within higher education are certain organizational-administrative factors which press for improvement: the proliferation of courses, the soaring cost of instruction, the need to loosen the departmental course-credit straitjacket, and others.

Trends, Shifts, and Projections

1. ***Trends.*** From the point of view of two major studies on curriculum changes and trends, the phrase that would most aptly describe the situation is, "the more it changes, the more it stays the same." At least this is the conclusion of a major study concerning changes in course offerings over a 10-year period in 322 colleges and universities. The study concluded that there was some evidence of adjustment to permit access to new disciplines but, for the most part, the changes over a 10-year period were minor and could be characterized as a "reshuffling of credits" and "tinkering." (24)

In summarizing research on the 322 institutions, the authors found small increases and decreases in specific requirements, and some increase in the broadening of major concentration areas and in the specification of electives as "free" or "directive." The major curriculum changes reported from the 322 institutions involved the process of individualizing education; *i.e.*, the establishment of programs, such as seminars, honors, etc. Viewed from the four-component perspective outlined at the beginning of the monograph, the present trends in curriculum can be summarized as follows:

- *Changes in Basic and General Education.* Almost all efforts have been directed at the clerical-distributive domain. In only two instances is there mention of the learner's developmental status ("acknowledgment of individual differences"). (24:31) One mention is made of efforts to integrate the learner and his mode of learning ("the value of integrative experiences"). (24:32)
- *Individualizing Education.* Five programs—advanced placement, honors, independent study, seminars, and study abroad—show increased popularity. These efforts indicate that in this area colleges and universities are not being confined to the clerical-distributive domain. Whether this represents action based upon new insights into the college student and how he learns or simply reflects the imitative behavior of institutions is not made clear. (24:44)
- *Comprehensive or Unusual Curriculum Patterns.* Fifteen summary statements are made about institutions which are attempting to base their educational efforts on explicit goals and objectives. These statements reflect familiar concepts such as depth, integration, breadth, and sequence. An analysis of the summary conclusions about these atypical campuses could lead one to believe that curriculum efforts at these institutions are being undertaken with not only the four components in mind but with a fifth one as well: institutional goals. There is, however, no evidence to suggest that these atypical efforts are being pursued beyond the clerical-distributive method.

Some of the same observations can be made about an earlier study which centered on the curriculum practices of 13 liberal arts colleges. (20) Of the three major findings, two can be described as clerical-distributive, *e.g.*, skipping, substituting, and altering course patterns. The third category (independent study) gives the implication that adjustments are being made for the learner. Of the three most prominent strategies, advanced placement was the most popular. Again, this practice takes the learner and his ability into

account—but the institutional response was primarily in terms of granting *x* number of credit hours to the student.

2. ***Shifts and Projections.*** Speculations about the future undergraduate curriculum lead some experts to predict that efforts will be made to cope with the course-credit phenomenon while attending to such matters as process, flexibility, and relevance. Mayhew foresees a curriculum oriented a great deal towards the learner's developmental status, to his learning in many ways, times, and places, and over an extended, intentionally broken, time line. (12) Curriculum efforts which mix realism and imagination in a futuristic orientation are few in number. Hampshire College is such an experimental effort. It sights its task as follows:

> The central task of liberal education is to help young men and women learn how to live their adult lives, fully and well, in a society of intense change, immense opportunity, and great hazards. (55:44)

The college's educational vision is spelled out even further:

> The first students of the College will live out a quarter or more of their lives in the morning of the 21st century, whose dawn already trembles in the sky. One cannot tell what living full and well will come to mean for them . . . they may encounter more change, more options, more complex dilemmas, more possible joys, more demands, more satisfactions, and more of a fighting chance to be human than men have known before. (55:45)

Principles and Guidelines

Literature discussing undergraduate curriculum improvement does not suffer from a lack of principles to guide the curriculum proper. Brown has noted the urgent need for principles to guide curricular design as well as the relationship between students, objectives, teachers, subject matter, instructional procedures, and financial resources. (73)

To meet the need for guidelines in curriculum improvement, experts put forward four types of assistance. They range from philosophical and rational concepts and principles to specific percentages in the clerical-distributive domain. Breadth, depth, continuity, and flexibility are considered to be essential, more substantive, elements. The fact that these notions have diverse interpretations is acknowledged by their proponent. (22) Three other less conceptual elements considered important are the balancing of liberal with vocational education, making provision for planning and evaluation of the curriculum, and keeping the teaching and learning relationship in mind. (22:21-37)

One author, who describes his guidelines as postulates, gives less attention to the clerical domain and more to the learner—his needs,

goals, and developmental status. (48:25-28) Others give emphasis to the need for regular review and modification, for uniting good curriculum practice and sound policy, for less emphasis on the upward focus (*i.e.*, towards the graduate school) and more in a downward direction (*i.e.*, towards the high school). McGrath offers a series of principles that relate mostly to the administrative side of improvement and which will be discussed later. (101) Dressel has suggested guidelines which touch more domains than the clerical-distributive. He notes the importance of the learner and the instructional pattern, and efforts to diversify the learning experience, *e.g.*, the minimal course-intensive approach. The impact of dissonant values, cultures, and subcultures also is emphasized by Dressel. (80)

Mayhew has recently cast the curriculum question in close relationship to the learner. (49) The guidelines which proceed from this relationship can be stated as follows:

- The curriculum ought to be closely attuned to the learner's psychological needs.
- Courses ought to reflect the learner's developmental status.
- Peer group processes ought to be co-opted for educational goals.
- Subjects ought to be sequenced to match psychological shifts between the freshman and the senior years.

He then proceeds to enumerate 12 needs possessed by the post-adolescent that may guide the process.

The most comprehensive guideline effort is a set of 38 principles directed primarily towards the clerical-distributive domain. (25) The first 21 principles suggest maximum percentages for the concepts of breadth, depth, and specialization, the addition of new curricula and restrictions for departmental offerings. Five principles center on concentration in other than a major subject. Twelve are related to planning a student's program. Of these 12, only two are concerned with the learning mode question. The remaining 10 are efforts to guide the student and the adviser and aid the student in establishing his course of study.

Two visual efforts were offered as examples to guide curriculum construction. One is a two-dimensional chart with subject matter areas from the social sciences on the horizontal dimension and the behavioral skills of the learner on the vertical dimension. By visualizing the curriculum this way, courses and behavioral skills can be integrated. The second example is a matrix which lists the six major groups into which a student's course of study is divided: core courses, general requirements, special core, major concentration, electives in major concentration, and free electives. Each of

these is given a percentage assignment on the basis of whether the student is an arts or science major or whether he is a technical or professional student. (23, Chapter 5)

Restraints and Barriers

A different situation exists with respect to restraints against UCI than with the pressures for UCI previously discussed. The literature does not indicate that there are numerous restraints to improvement that are external to the institution. (49, 62) Three external factors were mentioned but not given a major emphasis. They are budgetary controls from state legislatures, pressures from accrediting certification agencies, and the impact of graduate schools. Graduate schools are viewed as producing specialists whose major commitment is to research, and secondarily to matters such as teaching and curriculum.

> It is strange that college teaching is perhaps the one occupation which presumes to identify itself as profession and yet provides no specific professional preparation. (23:63-4)

Restraints within the institution come from four sources. These relate to the subject matter or what is to be taught, the learner, the administration, and the faculty. Each of these sources of restraint will be examined.

From the point of view of what is to be learned or the subject matter domain, there is the criterion question. What subject matter shall be taught? What is worth knowing? Along with this question is that of limit-setting on the subject matter. What substance shall become part of the course content and what shall be excluded? (48, 62) Other restraints of a subject matter nature are associated with the restraints which are partially substantive and partially administrative. An example of this restraint is the liberal arts-vocational distinction and what this distinction has bred: departments and colleges that are vocational in orientation. (23, 49) It raises the question of whether and to what extent vocational and professional education can participate in curriculum improvement at all.

From the learner's point of view, there is not much that would seem to restrain improvement. His capacity to be flexible to curriculum improvement was mentioned. (49) Only one author raised the question of whether or not students would support an institution which engaged in radical curriculum modification.

From an administrative-organizational point of view, the restraints are both specific and general. One relates to the financial implications of curriculum improvement, *i.e.*, whether institutions have adequate support and reward systems for such efforts. (3, 11) The other relates to organizational planning and procedures and

whether these are adequate to facilitate intelligently such improvement processes through the evaluation stage. (51) General administrative questions pertain to the doubt that any significant curriculum improvement can occur in a massive, complex university. The question of size and age of institution have a direct bearing on the UCI question. (49, 81)

There is almost complete unanimity in the literature as to the faculty's role in curriculum change. (3, 11, 23, 25, 48, 51, 62) The faculty are viewed as the "gatekeepers" of the improvement process. Their role is strategic to the entire process. The restrictive side of their role presents several problems which limit their effectiveness with respect to curriculum improvement.

First is the matter of the faculty member's personality. One can get two possible interpretations of the faculty member's personality as it relates to curriculum improvement. Both interpretations are laden with negative connotations, both compete with each other for validity. On the one hand he is viewed as generally rigid, inflexible and, hence, psychologically incapable of making any significant contribution towards over-all curriculum improvement. On the other hand, he is viewed as self-seeking, self-satisfied, and professionally autonomous to such an extent that he does not perceive any need for curriculum change. The former interpretation sees the faculty member as conservative and lacking the psychological flexibility and resiliency for any major curriculum adaptation. This view further supports the notion that the faculty member may not be capable of playing a psychological role with the undergraduate, *e.g.*, being an adult model, a parent-surrogate.

The second view tends to see the faculty as more psychologically capable than the first, but unprepared temperamentally for any serious negotiations on the curriculum. In this view the faculty member is perceived as the narrow specialist, intoxicated with his prestige and teaching what his taste, disposition, and research dictate, while making a clear demarcation between educational and noneducational matters. The learner's developmental needs would be labeled as being "student affairs" and of only secondary concern to him. An objection is raised in this latter view to the guild character of the faculty, which subjects the faculty to no external evaluative system other than that of other guild members. Finally, this view holds that the faculty grasp little of higher education's development, comprehends nothing of the importance of curriculum planning, and can understand few of the implications of curriculum decisions. In short, this latter view tends to cast the faculty as hyper-professionalists, who are uncommitted to change and who tend to gratify their personal rather than their professional needs.

There are other, more reasonable, views of the faculty and UCI. Other writers view the conservatism of faculty as less capricious and more characteristic of their profession. This view sees the faculty as willing to change with evidence that curriculum changes will be beneficial and constructive. Muscatine's portrayal of the faculty with respect to UCI is a more diverse but more realistic portrayal of UCI and faculty personality: the conservative, the punitive, the frightened, the loving scholar, etc. (3, 102)

The faculty's relationship to UCI becomes more complicated before what they sense to be the increasing bureaucracy of higher education and an imbalance in the power arrangements. The familiar collegial strategy for deliberation is not an adequate strategy to match what they sense to be a sophisticated and effective administration. In the absence of a swift decision-making and action mechanism, their emphasis on academic matters being their prerogative becomes more plausible. Such a sympathy ought not to blind one to the limited vision and competition, however, which can characterize faculty politics through departmental self-aggrandizement.

Old Curriculum Models and New Patterns

What Is To Be Learned or Experienced

There is great pressure for breaking out of the bookkeeping syndrome or grade gamesmanship of the clerical-distributive domain. Even more seriously, there is opposition to the fractionating of the intellect, a condemnation of the separation of the disciplines and the early push for specialization. (9) The new drive is for unity of knowledge and action in the world—not just the world around the campus (community involvement, job experience) but the global interrelatedness which is felt through non-Western programs, centers, and area studies. The new emphasis is to express what is to be learned not simply in terms of narrow specializations, course proliferations, or fractionalized disciplines. What is sought, in short, is unity. (7, 9)

If we use Hong's typology of unity in higher education, the old curriculum expressed itself predominantly in the additive or sampling modes. (23) The former presumes no describable unit between disciplines; therefore, courses and credits are interchangeable and additive. The latter emphasizes a concentration in one field to lead one into a breadth of knowledge. The new pressure is for a relational if not a holistic notion of the curriculum. The relational mode views the disciplines as relatively independent and distinct in content structure and method, but possessing underlying ideas, concepts, and similarities which can be identified. The holistic view

sees knowledge as meaningful only as it relates to other parts and to the whole.

The new pattern of disciplines will be characterized by relationship, by integration, and by flowing towards rather than away from each other. (7) If thorough integration is not attempted, the attempt will be made to engage in an understanding of what has become known as the "knowledge-getting" process. Phrases such as "conceptual inquiry" dominate the literature, especially of the experimental or cluster college. The effort is to help the student understand the way knowledge is organized in disciplines and how representatives of a discipline go about the business of practicing their profession or working in their discipline.

The Learner

There is an effort being made today to develop a new understanding of the learner. Past concepts of the learner considered him to be little more than an information storage and retrieval system manipulated at will by the didactic lecture. A new understanding would view the learner as capable of self-direction and management and of full participation in the planning and execution of his program of learning. This new participation will not only sustain his motivation, but will be a preview of his pattern in later life. His participation also will serve as an antidote to the mechanical pattern which the professor may be inclined to follow in dispensing the subject matter.

The new appreciation for the learner has come through the psychotherapeutic insights of Sanford, Erikson, and others. The educator's challenge is to incorporate the new psychological phenomena or mechanisms (autonomy, identity, spontaneity, rigidity) so that they can interact with procedures and subject matter. On the basis of the new information about the student, the heavy conceptualistic and anti-developmental orientation of the old curriculum was strongly criticized.

> Our universities, in spite of seeming objectivity of their curricular orientation, seem in fact committed to one particular and quite subjectivistic position: the value premise of the dominance of the intellectualist; and this in turn tied to an implicit personality theory which views personality as primarily intellectualist in nature. (34:423)

> A large part of education in schools, and perhaps even colleges, is concerned to suppress the impulse life, while building up to the highest possible degree controlling functions. (34:426)

Just at the time in his emotional development when the freshman ought to be learning to explore and accept his emotional and affec-

tive processes through the arts and philosophy, he is being squeezed into psychologically contrary subjects such as mathematics. These notions about the learner and the learning process have produced lists of developmental needs and statements that curriculum planning ought to reflect such needs. (49)

The Mode of Learning

The telling-receiving mode of the old approach to the learner is to become the cooperative or dialectic approach of the new learner/model. (7) The learner is to learn through a variety of situations, *e.g.*, self management, counterpoint real-life experiences, a "rap group" (rapport), a reading list, large and small lecture settings—and a genuine decision-making process will come to characterize the planning of these experiences. (103) Planned discontinuities, altering course characteristics (number, length, and depth), learning through various media, and co-opting the potency of the peer group also will be incorporated into the new model. (9, 49)

The question of whether organizational and administrative autonomy will be given the new curriculum has not been completely settled. Plans and provisions vary—from freeing one faculty member to spinning off a nest of campuses under the umbrella of a giant university. Where there is no provision for autonomy in these matters, the chances of survival are lessened. But even with success in the operation of significant new experiments, the question of whether there is any basic or fundamental change in the quality or nature of their curricular practices remains open.

The cluster college approach may avoid the curriculum overlap problem as well as the unwise use of resources, but insofar as it refuses to struggle with basic curriculum issues, it is another ring to an already expanded circus, leaving the curriculum question on the monolithic campus to be settled by others. (81)

The Process of Undergraduate Curriculum Improvement

Approaches

The importance of the UCI process and some method or principle to guide the process has been well stated by one author:

> Many attempts to reorganize the curriculum are destroyed at the point at which courses or other patterns of experience have been determined and departments or faculty members have been given the responsibility for instrumentation. Thus, there is a need for an operational set of rules, regulations, or principles which govern the course or curriculum structure and which also define the procedure for determining faculty load and for review and modification of the curriculum. (80:95)

As noted earlier, the literature is not lacking in approaches to guide the curriculum improvement process. Mayhew has a review of the major ones. (48)

Philosophers of education, theologians, and higher education experts offer their perspectives on the process. A theologian, Henry Newman, suggests the three categories of God, Man, and Nature for the organizational structure. Henle approaches the curriculum through the five approaches to reality. Phenix arranges knowledge and the disciplines around a specific number of human meanings. Tyler's familiar procedure would be to decide the goals, state them in behavioral terms, and organize the experiences to meet the goals.

Axelrod has proposed a theoretical curriculum-instructional model. There are two major components in Axelrod's model, each of which possesses three subcomponents. The major components are the structural and implemental elements. The subcomponents of the former are the content, the schedule, and the certification (evaluation). The subcomponents of the latter are the group-person interaction, the student's experience, and freedom-control (who decides, on what principles, etc.). (7:185-6)

Dressel suggests four *continua* to be used in considering the curriculum. Although not specifically divided into the four components of this monograph, the continua are related to the learner, the subject matter, and the learning process. By locating themselves on each of the continua, institutions may discover how they define curriculum and operationalize its role. (22:16-25) Because few institutions proceed effectively with their curriculum construction from explicit and self-conscious philosophies and goals, Dressel recommends that educational philosophy be made implicit in institutional goals. (22: Chapter 1)

It is reasonable to assume that between any idealized improvement process and the actuality of the process there is a significant gap. Michael Novak, in writing about procedures at the new SUNY campus at Old Westbury, says that:

> They sometimes seem to be lost somewhere in the marshes between full democratic assembly, authoritative fiat, and the slow coalescence of daily acts. (111)

Thus, there ought to be a category labeled "situational" which includes those factors and pressures that have nothing at all to do with guiding principles or determining procedures of improvement. If higher education has a weakness, it may be that of giving attention to the rational aspects of improvement and ignoring the more unexpected dynamic aspects of the process. (11) Certainly, when external pressures occur, some adjustment in curriculum

occurs. At such times, principles established in previous, more autonomous moments may be swept aside.

Along with institutions that find themselves making unexpected curriculum decisions are a few colleges and universities who choose not to engage in any overall curriculum building. Schools in this tradition maintain that the curriculum emerges as individuals struggle with and accommodate their perceptions and experiences with other persons and events. Rather than plan a fixed curriculum, the college is to be the place where faculty and students gather jointly to shape the curriculum. Bennington, Sarah Lawrence, and the recent "Free Universities" would be examples of this phenomenon. (48)

A pressure which has become an important factor in UCI is the instructional cost. (73, 83, 100, 101) (It is discussed further under Course Proliferation.) Fiscal soundness is emphasized by several writers. One urges the principle that any new courses will include a price tag as well as specific answers to such questions as, "What has been done to regroup or reorganize your existing set of courses to include this new proposal?" and "What evidence do you have that this new proposal will contribute significantly to the objectives of your department and the college or university?" (73) Dressel, too, emphasizes the point that colleges cannot continue to increase staff salaries and add new persons. (83)

Suffice it to say, most institutions hope for and anticipate an orderly, well-thought-out process which will produce a curriculum that has a rational unity. (106)

The strategies which are most common in the UCI effort have been discussed by Mayhew. (48) Some examples are the use of *ad hoc* committees, a self-study for accrediting agencies, the board of trustees, use of in-house staff (institutional research) or outside consultants. Other approaches are to sample the labor market which will be using the graduating student. Mayhew guesses that the most popular approach is imitation, or the "monkey-see, monkey-do" approach, wherein a committee from one institution will observe, visit, hear, or read about some innovation at another institution and install it in their own institution.

The most rational and comprehensive strategy for curriculum improvement has been offered by Dressel. In the Tyler tradition, Dressel would begin with the institution stating goals which are based on society's needs, its students, and a multiplicity of authorities. The goals are defined into objective terms and ranked with certain ones being included and others excluded. The third stage is the selection and planning of educational experiences. At this point an institution must answer two simultaneous questions, *e.g.*, whether or not it can support the improvements and whether

it has other sufficient facilitating agents to achieve its objectives. Dressel lists 10 of these facilitating agents. The fourth stage is to organize these experiences into courses. The final stage is the evaluation of the improved curriculum, a threatening aspect of the entire UCI discussion. (80) Outside of Dressel and Mayhew's efforts in general education at Chicago, one finds only isolated efforts to evaluate a particular curriculum. (35)

Because UCI can mean simple course changes or radical revisions, there will probably have to be different procedures for different levels of change. Low-level changes of a minor sort only require orderly coordination and processing. As improvement becomes more significant, *e.g.*, university-wide studies, there are more insights and skills required than simple coordination. Multiple insights and skills should be employed if the improvements are to be thorough and far-reaching.

Control Agents and Participants in the Process

1. ***Students.*** That student needs and goals ought to be reflected in curriculum decisions has been continually emphasized. That students ought to be active participants in the UCI process has not been discussed. The arguments against student participation have centered mostly on the lack of subject matter competence, the non-legitimacy and non-accountability of students with respect to the task. (96, 104) Other authorities, noting the successful history of student participation in academic affairs in the U.S. and abroad, insist that students can not only revise the curriculum but also can help to organize a college as well as courses. (90, 91) Hodgkinson maintains that by his senior year a student may have as much institutional experience as the average faculty member. Further, the student may assist the institution in developing its true goal of intellectual collaboration. Others have encouraged making students full participants in curriculum planning through study and policy recommendations or through consultation. (3, 55)

2. ***Administration, Faculty, or Board of Trustees.*** Ruml and Morrison have opened the question of curriculum control for liberal arts colleges against a backdrop of course proliferation. Noting six causes of this phenomenon, they concluded that:

> The decisive pressure for increase in the number of courses offered came from within the faculty itself and was a response to inter- and intra-departmental competitive forces that are understandable and real. (58)

The authors pushed for joint control of curriculum design and administration through one of three mechanisms: the president's office, a faculty committee, or an educational council composed of faculty,

administrators, and trustees. (58:14)

The 1960 *Current Issues in Higher Education* (63) debated the question of course proliferation and curriculum control. The faculty argument was that without faculty control there can be no curriculum unity. The administrative argument was that the faculty lacks the commitment to the overall institutional good, and thus its authority should be limited to courses and course content. The president of the college is the responsible official

> who most clearly can appraise an institution's strengths and weaknesses, who can . . . balance genuine needs against departmental empire building. . . . (63:53)

Thus, curriculum is seen as a joint responsibility with the administration playing the major role.

It was noted in the discussion on restraints that a negative perception of the faculty exists. Not all of the reasons for this attitude are apparent. However, a major reason is the matter of the political processes which characterize the faculty. Jencks traces the inadequacies of UCI to faculty control and government:

> The inadequacies of the curriculum are, I think, a direct reflection of this paralysis of faculty government . . . the Byzantine irrelevance of faculty politics cannot help but be mirrored in the curriculum. (Quoted by Baskins in 11:96)

There is no doubt that the faculty do feel justified in the matter of curriculum control. The AAHE task force found this to be true in a field study of academic governance:

> In the most fundamental sense, the university is the faculty. Thus, the faculty voice must be the major voice in the formulation of educational policies and the manner in which they are implemented. . . . The faculty studies reveal that the interest of the faculty in these matters is substantial. (2:27-8)

The problem of engaging in UCI with the faculty's political patterns today, appears to be insoluble without moving from a pattern of direct participation to a representative form of government with better decision-making outcomes. As matters stand now, the faculty's refusal to engage in serious UCI on the one hand, and to release the curriculum from their sphere of power on the other, results in loss of integrity for them and establiishes a vacuum which invites some other agent – internal or external to the institution – to enter and assume responsibility for this function. (106)

Suggestions to close the faculty-administration gap and strengthen the UCI process are very direct for both sides. For the administration – better communication systems at all levels, more information, and more effective leadership; for the faculty – better action and decision making, less bifurcation of what they consider vital or edu-

cational and noneducational. For both, there is a need to develop a more realistic attitude about the kinds of power and restraints they characterize. (3, 25)

Other specific procedures which are encouraged to assist the UCI process are: classifying courses into types (*e.g.*, service, specialized) with indices for each type; developing departmental and evaluative review procedures; establishing an institution-wide committee or committees (if campus is large) with a central review authority for each course; establishing capacity indices for departments based on staff size, faculty load, number of courses offered per major, optimum class size for different learning modes, etc. (22, Chapter 10, 82, 83, 106) Some suggest that departments review each other's course offerings since their plans affect each other financially. (23, Chapter 4)

That curriculum review must be put into the hands of some agency more competent and stronger than the department or the conventional curriculum committee is continually emphasized. Dressel proposes multiple committees or outside consultants. (83) Without some comparable procedure, no serious review or improvement will likely occur. Such an agency would overcome the traditional problems of curriculum committees, *i.e.*, incompetency, fear of retaliation, professional courtesy, and other dynamics—which make traditional committees hesitant to question proposals. (106)

SOME PROBLEMS FOR POTENTIAL DEVELOPMENT EFFORT

Brumbaugh, in his ACE Report, *Research Designed to Improve Institutions of Higher Education*, emphasizes four areas of the curriculum in higher education that should be researched. All four have been emphasized in this paper: (1) Viewing the curriculum as the student's total campus experience; (2) finding ways of attacking the course proliferation problem; (3) relating curriculum to needs of students, and (4) helping administrators and faculty ensure that new knowledge is incorporated into the curriculum and that established procedures for revision exist. (17:13-14) This final section of the monograph reviews some possible areas wherein improvement can be sought.

Course Proliferation

The growth of new knowledge and its impact on the curriculum is given much attention by writers. (16, 17, 41, 46, 101) Most are of the opinion that it is impossible to stay ahead of the torrent of new knowledge, much less give curricular form to it. Attempting to purchase all the new books published would by itself exhaust the financial resources of most institutions. Thus, some are questioning whether economic restraints will force a consideration of new ways of pooling and sharing information and knowledge. (55:23)

It is this rapid expansion of new knowledge, as well as its pluralism (41), that is causing some thinkers to search for ways of transforming and assimilating new knowledge into old curricular forms. Some propose national commissions on all subjects and disciplines that relate to the last two years of high school and the first two years of college. (62:127-140) Such a commission, working in a given subject matter area, could attempt to develop and maintain national consensus with respect to the substance of the discipline.

Others, following the emphasis of Bruner, suggest that we use the inherent structure of a discipline as the focus of the curriculum. The meaning and implication of such an effort is that disciplines not only have histories, but also possess inherent organization of concepts, ideas, procedures, and guiding principles. By emphasizing the structure of disciplines, their classification becomes possible, *i.e.*, by what they investigate, by how they investigate (their syntax or method), by what skills or competencies are required of their practitioners, and by the kind of knowledge outcomes which they seek. Subject matters which share similar modes of knowing or methods of inquiry could be organized together, thus making learning more efficient. (26:13-14, 41) More practical remedies for this substantive aspect of course proliferation have to do with seeing that new courses have sufficient substantive content to warrant inclusion or whether they lack distinction and would be duplicative. (22)

A second group of causes includes the proliferation of nonsubstantive courses. This group includes the phenomena of prestige-imitation by institutions (as analyzed by Reisman), of vocational-professional school efforts within most institutions to justify a steady addition of new specialized courses with restricted enrollment. The departmental competition which underlies much of this course proliferation was mentioned in the discussion on restraints. To that should be added the faculty pressure groups that operate on curriculum committees (101), higher faculty loads, and lower salaries. (83) Administratively, this proliferation produces scheduling conflicts, a disruption in the sequence of the student's courses (22), and too much early specialization. (46)

Remedies have been proposed for these nonsubstantive courses. McGrath, on the basis of his study, asserts that:

> The facts show incontrovertibly that most colleges can materially improve their financial situation by reducing their offering while increasing their enrollments. (100:245)

Thus, he proposes a limited curriculum, *i.e.*, the total amount of the curriculum would remain constant but the content would vary. No additions could be made without deletions. Other suggestions are: separating teaching from research activities; developing a tight control and review on course offerings; keeping a close relationship between the number of courses offered and the number needed; and helping faculty see that improvement will have reward outcomes for them. (101) McGrath casts his limited curriculum theory into an economic model in which the two key factors are a balanced relationship between departmental offerings and class size.

On the basis of this, the present writer suggests that course proliferation be confronted on the two levels discussed—substantive and nonsubstantive. The substantive level would require that the challenge of new knowledge be confronted with the intent of transforming, assimilating, and integrating it into the ongoing course offerings of an institution. Through the assistance of subject matter experts, outstanding scholars from the professions, curriculum theorists, and those on the campus who shape and revise courses in departments, an effort could be made to meet the substantive cause of course proliferation.

Developing a System of Curriculum Review and Control

The literature has shown that present methods of curriculum review and control are inadequate. Extraneous pressures and irrelevant factors mitigate against a thoughtful, orderly process. Institutions would be greatly assisted if some effective, comprehensive review and control procedures could be developed so that they can restrain unwanted pressures as well as evolve a balanced curriculum.

Achieving a More Comprehensive Curriculum Framework

The undergraduate curriculum of colleges could be invigorated if institutions could incorporate the four components* considered in this document into their planning and deliberations about curriculum. One suspects that colleges and universities have more potential than they are using effectively. Providing institutions with an analytical framework for the curriculum-instruction-learning process would be a first step in understanding and mobilizing their resources for their educational task.

Curriculum Planning and Management

Possessing a framework for understanding a curriculum is not sufficient. An institution must be able to incorporate these components into its own discussions and deliberations. It must be able to consider its own student body, its faculty, its subject matter, and how they interact to achieve the institution's objectives. A multidisciplinary attack will be needed when institutions begin to plan seriously with all of these components in mind. The adolescent psychologist, the curriculum analyst, the skilled administrator—all would bring insight to bear on the curriculum. Institutions would

*The learner, what is to be learned or experienced, the instructional agent, and the interaction between and among them.

be helped to see how curriculum theory, psychological knowledge about students, subject matter competence, and institutional goals meet, interact, and finally are blended.

The curriculum would be given a theoretical as well as an operational analysis, including its evaluation. Such an effort, if successful, would insure the congruence of the student's needs, the faculty's interests and abilities, and the goals of the institution.

Interaction Between the Instructor, the Subject Matter, and the Learner

This paper has continually emphasized that the undergraduate curriculum is more than a specific set of courses and that teaching is more than the didactic lecture. In spite of new efforts to individualize education, little is being done to assist the graduate-trained instructor to gain flexibility at the point where he interacts with his subject matter and his students. His personality, verbal behavior, his subject matter, his instructional style, and the affective behavior of his students can be analyzed for more effective and striking modes of learning and learning outcomes.

SUMMARY AND RECOMMENDATIONS

Questions related to undergraduate curriculum improvement were examined in this study from two perspectives. The first was that of the National Laboratory for Higher Education and its assumptions about the interrelationships between faculty, instruction, and curriculum in higher education. The second perspective was that of the author, who discussed curriculum improvement within a four-component framework.

Aspects of the topic considered were an analysis of the level at which curriculum improvement is currently being practiced, the pressures and restraints which facilitate as well as inhibit improvement, and the principles and procedures which ought to guide improvement efforts. Five areas of potential developmental activity were recommended, reflecting specific problems which emerged from the study:

Course Proliferation—Higher education, unlike secondary education, has not been successful in transforming and integrating new knowledge into existing course offerings.

A System of Control and Review—Extraneous and irrelevant factors often contaminate and distort an orderly improvement process. A system of control and review could determine which of these factors should be considered and which excluded from the process.

Achieving a More Comprehensive Framework for Curriculum Considerations—A four-component framework (the learner, the content, the instructional agent, and interaction among them) was suggested as incorporating the total learning process in higher education.

Planning and Management of the Curriculum Improvement Process—Such a planning and management effort would incorpo-

rate the three major communities in higher educational institutions —faculty, students, and administration—to bring about a creative congruence of student needs, faculty abilities and interests, and institutional goals.

Interaction of the Student, the Instructor, and the Subject Matter—Graduate education typically gives little attention to the needs of the future college teacher. Efforts to assist the instructor in preparation for teaching and attaining institutional goals, contribute to improvement of the interaction process. Other efforts could be employed to increase instructional effectiveness (*e.g.*, the utilization of research and techniques from classroom interaction behavior as well as teacher behavior). The instructor would not only come to understand his own verbal, pedagogical, and cognitive styles, but would become familiar with alternate instructional models and approaches. Such exposure and training would result in greater freedom and flexibility for both the instructor and the classroom process.

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64. Smith, G. Kerry, ed. *Stress and Campus Response.* San Francisco: Jossey-Bass, Inc., 1968.

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85. Flaum, Laurence S. "Four-Course Program: Boston University." *Innovation and Innovative Programs.* April 11, 1969.

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86. Flaum, Laurence S., ed. *Innovation and Innovative Programs.* University of South Carolina, n.d.

87. Gaff, Jerry, and Bob Wilson. Curriculum article in *Research Reporter,* Vol. 4, No. 1, 1969.

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89. Heist, Paul. "Diversity in College Student Characteristics." *Journal of Educational Sociology* 33(1960):279-291.

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    Students have demonstrated that they not only can run food services but revise curriculum at Antioch, offer courses at San Francisco State, and plan a new college in N. Y. State. Although the cry for "relevance" cannot be totally heeded, field programs and the like can help.

91. Hodgkinson, Harold L. "Students and an Intellectual Community." *Educational Record*, Fall 1968, pp. 398-406.

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    A conception of a college (including the curriculum) is discussed in which "process and individuality predominate, and structure and system are seen as means to individualistic ends."

93. Jencks, Christopher. "New Breed of B.A.'s." *New Republic*, October 23, 1965, pp. 17-21.

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    Just as the college has been changed (proliferation, specialization, etc.) by *Technological Revolution*, it will also be changed by *Social Revolution* (global interrelatedness, social justice, urbanization, organizational reliance, leisure, obsolescence of knowledge).

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